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POSTAL RATE COMMISSION  
OFFICE OF THE SECRETARY

UNITED STATES OF AMERICA  
Before The  
POSTAL RATE COMMISSION  
WASHINGTON, D.C. 20268-0001

Postal Rate and Fee Changes

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Docket No. R2000-1

ANSWERS OF THE OFFICE OF THE CONSUMER ADVOCATE  
TO INTERROGATORIES OF THE UNITED STATES POSTAL SERVICE  
WITNESS: MARK EWEN (USPS/OCA-T5-17-22)  
(July 3, 2000)

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The Office of the Consumer Advocate hereby submits the answers of Mark Ewen to interrogatories USPS/OCA-T5-17-22, dated June 19, 2000. Each interrogatory is stated verbatim and is followed by the response.

Respectfully submitted,



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ANSWERS OF OCA WITNESS MARK EWEN  
TO INTERROGATORIES USPS/OCA-T5-10-16

USPS/OCA-T5-17. Please refer to Table 2, page 7 of your testimony. Please note that for purposes of this interrogatory, an estimate of coverage-related load time based on the Commission's definition of coverage load as the excess of total over elemental load time is referred to as "PRC coverage-related load time." The cost of this "PRC coverage-related load time" is referred to as "PRC coverage-related load time cost."

- (a) Please confirm that the BY 1998 PRC accrued coverage-related load time cost of \$1,104,406,000 reported in Table 2, page 7 of your testimony equals the sum of the following three PRC coverage-related load time costs by stop type: \$612,733,000 for SDR stops, \$330,615,000 for MDR stops, and \$161,057,000 for BAM stops. If you do not confirm, please specify how this \$1,104,406,000 is allocated across the SDR, MDR, and BAM stop types.
- (b) Please note that the \$612,733,000 in PRC accrued coverage-related load time cost for SDR stops divided by the average FY 1998 city carrier wage rate of \$25.92/hour (Docket No. R2000-1, USPS-LR-I-127, page 440) equals 23,639,406 hours. The ratio of these hours to the total of 12,802,475,000 SDR actual stops in FY 1998 (Workbook Cs06&7.xls, USPS-LR-I-80 at sheet 7.0.4.1, cell L65) equals 6.65 seconds in PRC coverage-related load time per SDR stop.
  - (1) Please confirm that this 6.65 seconds in PRC coverage-related load time per SDR stop is an estimate of the average additional load time that is caused specifically by a carrier going to a new, previously uncovered SDR stop in response to volume growth. If you cannot confirm, explain what operational activities are performed during the 6.65 seconds of PRC coverage-related load time.
  - (2) If your answer to part (1) is anything other than an unqualified confirm, please specify how this 6.65 seconds in PRC coverage-related load time per SDR stop constitutes a measure of coverage-related as opposed to other load time. Include in this explanation an answer as to why, from an operational and engineering perspective, this 6.65 seconds per stop is coverage-related load time as opposed to elemental load time or institutional load time?
  - (3) Consider the additional load time that occurs solely because a carrier delivers mail to a previously uncovered SDR stop that now gets mail due to volume growth. Confirm that this additional load time is the same amount of time regardless of (1) how much mail is delivered to the new SDR stop and (2) how that new mail is distributed across mail shape categories and mail subclasses. If you do not confirm, explain how this additional coverage related load time varies with volume in amount or by shape and class.

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- (4) Consider the additional letter route access time that results from the fact that, due to volume growth, a carrier walks up to a previously uncovered SDR stop to deliver mail. Confirm that this additional carrier walking time is the same regardless of how much mail is delivered at that new stop or how that new mail is distributed across mail shape categories and subclasses. If you do not confirm, explain how this additional access time varies with volume in amount or by shape and class.
- (c) Please confirm that the BY 1998 total accrued load time cost of \$2,856,175,000 reported in Table 2, page 7 of your testimony equals the sum of the following three accrued load time costs by stop type: \$1,571,780,000 for SDR, \$948,109,000 for MDR, and \$336,286,000 for BAM. If you do not confirm, please specify how this \$2,856,175,000 total accrued cost is allocated across stop types.
- (d) Please observe that the \$1,571,780,000 in total accrued BY 1998 SDR load time cost divided by the average FY 1998 city carrier wage rate of \$25.92/hour (Docket No. R2000-1, USPS-LR-I-127, page 44) equals 60,639,671,000 hours. The ratio of these hours to the 12,802,475,000 SDR actual stops accessed in BY 1998 (Workbook Cs06&7.xls, USPS-LR-I-80, at sheet 7.0.4.1, cell L65) equals 17.05 seconds of total accrued load time per SDR stop. The excess of this 17.05 seconds of total accrued load time per SDR stop over the 6.65 seconds of "PRC coverage-related load time" per SDR stop is 10.40 seconds per stop.
- (1) Please confirm that this 10.40 seconds is elemental load time per SDR stop.
- (2) If you do not confirm, please report your alternative measure of BY 1998 elemental load time per SDR stop.

RESPONSE TO USPS/OCA-T5-17:

- (a) Confirmed, with the exception that the figure for BAM stops should equal \$161,058,000.
- (b)(1) Not confirmed. Coverage-related costs vary by type of stop. The average value, assuming, *arguendo*, it is coverage-related, is not relevant for cost attribution. Further, it is not necessary to define the specific operational activities performed at each stop for proper cost attribution under the PRC method. The coverage-

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related load time increment represents the load time that is not accounted for in the volume variability measure estimated by the LTV regressions.

- (b)(2) The load time variability analysis, through a statistical procedure, establishes the portion of load time that varies directly with volume loaded at a stop. This portion of total load time is commonly referred to as elemental load time. The residual portion of total load time yielded by this procedure is referred to as coverage-related load time and, therefore, by definition cannot be considered elemental load time. From an operational or engineering perspective, this increment of time represents the operational activities performed by the carrier that are not directly accounted for by the volume variability analysis. A portion of the residual is treated as an institutional cost, as not all of coverage-related load time is attributed on the basis of the percentage of stops receiving only one subclass of mail.
- (b)(3) Not confirmed. The "additional load time" at the new stop will have both elemental and coverage-related components, and will be dependent upon the magnitude of the volume increase (including shape/subclass distribution)
- (b)(4) Not confirmed. I am not aware of any analysis that evaluates whether or not access time has an "elemental" component.
- (c) Confirmed.
- (d)(1) I confirm that the 10.4 seconds represents a measure of the average elemental load time per SDR stop.
- (d)(2) N/A

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USPS/OCA-T5-18. Confirm that there is a difference between the carrier activities that take place during the elemental load time at an SDR stop and the carrier activities that take place during the coverage-related load time at an SDR stop (as measured based on the PRC definition of coverage-related load time). If you confirm, please list all differences between the activities involved in elemental load time and coverage related load time. If you do not confirm, please explain why the two different types of load time receive different variabilities and different distribution keys.

RESPONSE TO USPS/OCA-T5-18:

I am unsure that I understand the question. The specific activities undertaken by a letter carrier are likely to vary considerably for both the elemental and the coverage-related load time, depending upon volume, piece characteristics, weight, receptacle type, and possibly a host of other variables, such as weather. The statistical procedure used to partition elemental and coverage-related load time indicates that a portion of a carrier's loading activities at a stop are directly influenced by the volume loaded at the stop, while another portion is not. However, I cannot disaggregate each and every movement of the carrier into an elemental and coverage-related component based on every different type of stop, receptacle, volume mix, and weather conditions, since it implies that the elemental and coverage-related components of load time could be, or have been, measured through direct observation. For these reasons, I rely on the LTV regressions to derive this split.

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USPS/OCA-T5-19. Please refer to your Testimony at page 3 line 18 through page 4 line 3 where you present the Commission's established approach for distributing elemental load time costs and PRC coverage-related load time costs across mail classes. Please explain fully why the PRC costing methodology uses a different distribution method to allocate SDR elemental load time cost across mail subclasses than it uses to allocate SDR coverage-related load time cost across mail subclasses.

RESPONSE TO USPS/OCA-T5-19:

SDR elemental load time costs are properly attributed to all classes of mail based on the volume-related elasticities derived from the LTV regressions. SDR coverage-related load time costs are not "allocated across mail classes." A *portion* of SDR coverage-related load costs are assigned to individual subclasses of mail based on the single subclass stop method. See PRC Op. R94-1, ¶¶s 3095 - 3152.

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USPS/OCA-T5-20. Please refer to Table 2, page 7 of your testimony. Please note that for purposes of this interrogatory, an estimate of coverage-related load time based on the Commission's definition of coverage load as the excess of total over elemental load time is referred to as "PRC coverage-related load time." The cost of this "PRC coverage-related load time" is referred to as "PRC coverage-related load time cost."

- (a) Please note that the \$161,057,000 in PRC accrued coverage-related load time cost for BAM stops divided by the average FY 1998 city carrier wage rate of \$25.92/hour (Docket No. R2000-1, USPS-LR-I-127, page 440) equals 6,213,630 hours. The ratio of these hours to the total of 1,288,917,000 BAM actual stops in BY 1998 (Workbook Cs06&7.xls, USPS-LR-I-80 at sheet 7.0.4.1, cell L67) equals 17.35 seconds in PRC coverage-related load time per BAM stop.
- (1) Confirm that this 17.35 seconds in PRC coverage-related load time per BAM stop [is] an estimate of the average additional load time that is caused specifically by a carrier going to a new, previously uncovered BAM stop in response to volume growth. If you do not confirm, please explain the source of the 17.35 seconds in PRC coverage-related load time.
- (2) If your answer to part (1) is anything other than an unqualified confirm, please specify how this 17.35 seconds in PRC coverage-related load time per BAM stop constitutes a measure of coverage-related as opposed to other load time. Include in this explanation an answer as to why, from an operational and engineering perspective, this 17.35 seconds per stop is coverage-related load time as opposed to elemental load time or institutional load time.
- (5) [sic] Consider the additional letter route access time that occurs because, due to volume growth, a carrier **walks up** to a previously uncovered BAM stop to delivery mail. Confirm that this additional carrier walking time [is] the same amount of additional time regardless of (1) how much mail is delivered at that new stop and (2) how that new mail is distributed across mail shape categories and subclasses? If you do not confirm, explain how this additional coverage-related [ ] time varies with volume in amount or by shape and class.
- (b) Please observe that the \$336,286,000 in total accrued BY 1998 BAM load time cost divided by the average FY 1998 city carrier wage rate of \$25.92/hour (Docket No. R2000-1, USPS-LR-I-127, page 44) equals 12,973,983 hours. The ratio of these hours to the 1,288,917,000 BAM actual stops accessed in BY 1998 (Workbook Cs06&7.xls, USPS-LR-I-80, at sheet 7.0.4.1, cell L67) equals 36.24 seconds of total accrued load time per BAM stop. The excess of this 36.24 seconds per BAM stop over the 17.35 seconds of "PRC coverage-related load time" per BAM stop is 18.89 seconds per stop.

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- (1) Please confirm that this 18.89 seconds is elemental load time per BAM actual stop.
- (2) If you do not confirm, please report your alternative measure of BY 1998 elemental load time per BAM actual stop.

RESPONSE TO USPS/OCA-T5-20:

(a)(1) See response to 17(b)(1).

(a)(2) See response to 17(b)(2).

(a)(5)[sic] See response to 17(b)(4).

(b) I confirm that the 18.89 seconds represent a measure of the average elemental load time per BAM stop.

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USPS/OCA-T5-21. Observe that the ratio of SDR coverage-related load time per stop (6.65 seconds) to SDR elemental load time per stop (10.40 seconds) is 63.89%, and that the ratio of BAM coverage-related load time per stop (17.35 seconds) to BAM elemental load time per stop (18.88 seconds) is 91.91%.

- a. Confirm that the ratio of coverage-related load time per actual stop to elemental load time per actual stop is much higher for BAM stops than for SDR stops.
- b. If you confirm, please provide an explanation of the "operational reality" that explains this difference in the ratios, and "a clear hypothesis about the physical rationale" for why the ratio of coverage-related to elemental load time per stop is so much higher for BAM stops than for SDR stops.
- c. If you do not confirm, please explain why the ratio of PRC coverage related load to elemental load time is about 64% for SDR stops but nearly 92% for BAM stops.

RESPONSE TO USPS/OCA-T5-21:

- (a) Not confirmed.
- (b) N/A
- (c) Assuming, *arguendo*, the interrogatory's figures are accurate, coverage-related time for SDR stops is 39 percent of average stop time, and coverage-related time for BAM stops is 48 percent of average stop time. I have not performed any analysis to assess the statistical significance of that difference and have no opinion as to whether that difference can be appropriately characterized as "much higher."

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USPS/OCA-T5-22. Please observe that the ratio of total BY 1998 accrued coverage-related load time workhours to aggregate annual BY 1998 actual stops equals 6.65 seconds for SDR stops and 17.35 seconds for BAM stops.

- a. Confirm that the BAM coverage related load time per stop is much higher than the SDR coverage related load time per stop.
- b. If you confirm, explain fully why is the BAM coverage-related load time per actual stop 10.70 seconds higher than the SDR coverage-related load time per actual stop.
- c. If you do not confirm, explain how coverage related load time for BAM stops is almost three times as large as the coverage related load time for SDR stops.

RESPONSE TO USPS/OCA-T5-22:

- (a) Not confirmed. The average coverage-related load-time per BAM stop is higher than the average coverage-related load-time per SDR stop, based on this measurement approach. I have not performed any analysis to assess the statistical significance of that difference, and therefore have no opinion as to whether that difference can be appropriately characterized as "much higher."
- (b) N/A
- (c) Average coverage-related load time for BAM stops is higher than for SDR stops for two reasons. First, average total load time at BAM stops is roughly twice that of SDR stops. Second, the results of the LTV regressions indicate that the portion of load time that is elemental is lower for BAM stops relative to SDR stops. As a result, the residual component of load time remaining after the volume variable component has been estimated and removed (i.e., coverage-related load time), is larger for BAM stops relative to SDR stops.

CERTIFICATE OF SERVICE

I hereby certify that I have this date served the foregoing document upon all participants of record in this proceeding in accordance with Section 12 of the Rules of Practice.

  
EMMETT RAND COSTICH

Washington, DC 20268-0001  
July 3, 2000